

Federal Communications Commission  
Office of Engineering and Technology  
Laboratory Division Public Draft Review

August 7, 2023

## Draft Laboratory Division Publications Report

**Title:** OET Laboratory Services API

**Short Title:** OET Laboratory Services API

**Reason:** Added information on method call getAFCAuthorizations for Standard Power Access Points and for Fixed Client devices authorized under CFR 47 Part 15 Subpart E

**Publication:** 953436

**Keyword/Subject:** EAS Web API Services

**First Category:** Administrative Procedure

**Second Category:** Other [Administrative Procedure]

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### Question:

What web services are available for accessing data in the FCC Laboratory Equipment Authorization System?

### Answer:

The attached document 953436 D01 OET Laboratory Services API v02 provides details for the getFCCIDList API, the getWhitespaceAuthorizations API, the getCBSDAuthorizations API and and getAFCAuthorizations.

The getFCCIDList API allows an FCCID or partial FCCID to be entered and returns all approved FCCIDs that match the search criteria.

The getWhitespaceAuthorizations API allows a date range to be entered and returns a list of all devices approved with equipment classes associated with white space devices.

The getCBSDAuthorizations API allows a date range to be entered and returns a list of all devices approved with equipment classes associated with Citizens Broadband Service Devices.

The getAFCAuthorizations API allows a date range to be entered and returns a list of all Standard Power Access Points and Fixed Client devices.

Attachment List:

### Attachment List:

[953436 D01 OET Laboratory Services API v03](#)

## Attachment

### **Federal Communications Commission Office of Engineering and Technology Laboratory Division**

## **APPLICATION PROGRAMMING INTERFACE (API) FOR OET EQUIPMENT AUTHORIZATION SYSTEM**

### **1. OVERVIEW**

This publication describes the functions supported by the Application Programming Interfaces (API) for the OET Equipment Authorization System (EAS). The API currently has four method calls: `getFCCIDList`, `getWhitespaceAuthorizations`, `getCBSDAuthorizations`, and `getAFCAuthorizations`. The following sections describe the details of the functions supported and the input and output fields. The `getFCCIDList` call takes a full or partial FCC ID as a parameter and returns any matching approved equipment authorizations on file with the OET Laboratory. A call to `getWhitespaceAuthorizations`, `getCBSDAuthorizations`, or `getAFCAuthorizations` takes a starting and ending date range as parameters. It returns the FCC ID for the approved equipment class(s) for equipment either for Whitespace, CBSD, or AFC, respectively, within that date range provided in the call.

### **2. DESCRIPTIONS OF THE SERVICES**

**getFCCIDList:** API allows users to enter a grantee code or the initial portion of an FCC ID and obtain a list of all granted FCC IDs that are an exact or partial match. The minimum search criterion that must be entered is a three or five-character grantee code. The return results include a list of FCC IDs that match the search parameters entered, the grant date and application purpose for each FCC ID, and the grantee name and address.

**getWhitespaceAuthorizations:** API allows users to obtain a list of all white space equipment authorizations subject to Certification that have been approved over the specified date range. The date is entered in the format MM-DD-YYYY. A start and end date are both required. The results returned identify the FCC ID, Equipment Class, Status, Status Date, and Application Purpose. This includes equipment classes for White Space devices (Fixed, Equipment Class WGF; Personal/Portable (P/P) Mode II, Equipment Class WG2; Mobile, Equipment class WMO; Narrowband White Space, Equipment Class WIT) authorized under CFR 47 Part 15 Subpart H and Knowledge Data Base (KDB<sup>1</sup>) 416721

**getCBSDAuthorizations:** API allows users to obtain a list of all Citizens Broadband Radio Service Device equipment authorizations subject to Certification that have been approved over the specified date range. The date is entered in the format MM-DD-YYYY. A start and end date are both required. The return results include the Application Purpose, Equipment Class, FCC ID, Grantee Name, Status, Status Date, Grant Notes, Description, Emission Designator, Frequency Max, Frequency Min, and Power Output. This includes all equipment authorizations under the equipment classes CBD-Citizens Band Category A and B Devices, and CBE-Citizens Band End User devices authorized under CFR 47 Part 96 H and Knowledge Data Base (KDB ) 940660

**getAFCAuthorizations:** API allows users to obtain a list of all Device equipment authorizations subject to Certification that have been approved over the specified date range. The date is entered in the format MM-DD-YYYY. A start and end date are both required. The return results include the Application Purpose, Equipment Class, FCC ID, Grantee Name, Status, Status Date, Grant Notes, Description, Frequency Max, Frequency Min, and Power Output. This includes all equipment authorizations under the equipment classes 6SD for a Standard Power Access Point and 6FC for Fixed Client devices authorized under CFR 47 Part 15 Subpart E and Knowledge Data Base (KDB ) 987594.

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<sup>1</sup> KDB Publications can be obtained at <http://www.fcc.gov/labhelp> using the KDB Publication Number Search field.

### 3. SUMMARY OF RESULTS PARAMETERS RETURNED

Returned Result Field	Description
Application Purpose	The application purpose is a description required on each application submitted that indicates if the application is for a new product or a change to an already existing product. The description can be one of the following: Original Equipment, Class II Permissive Change, Change in Identification, or Class III Permissive Change.
Description	Free Form field for the product description includes additional information about the product that was entered on Form 731 by granting Telecommunication Certification Body (TCB).
Emission Designator	This is typically a 7-character alpha numeric classification that describes the nature of the type of signal being transmitted and specifies the necessary bandwidth. See Sections 2.201 and 2.202 of the FCC rules for more detail.
Equipment Class	The equipment class is a three character identifier assigned by the FCC to group similar types of equipment.
FCCID	The FCC ID uniquely identifies the equipment authorization. It is made up of a three or five-character alpha-numeric grantee code that is assigned by the FCC, followed by the product code that is one to fourteen alpha-numeric characters assigned by the grantee and may include the “-“(dash or hyphen). Blank spaces are not allowed.
FreqMax	The FreqMax field returns the highest operating frequency in MHz.
FreqMin	The FreqMin field returns the lowest operating frequency in MHz.
Grantee Address Address State City Zip Code Country	The getFCCID method call returns multiple parameters related to the Grantee address. The grantee is the party responsible for compliance of the device. Information returned is their address of record in the EAS. State is only returned if the grantee is located in the US.
Grant Date	The date the device authorized in the FCC Database.
Grantee	The grantee result field returns the grantee company name. The grantee is the party responsible for compliance of the device. Information returned is their company name of record in the EAS.
Notes	The notes field returns grant note information. Grant notes are two-character standard text statements on equipment authorization grants that are commonly used that identify conditions of approval. A full list is available at: <a href="https://apps.fcc.gov/oetcf/eas/reports/GrantNotesList.cfm">https://apps.fcc.gov/oetcf/eas/reports/GrantNotesList.cfm</a>
Power Output	The power output is the amount of power of radio frequency (RF) energy that a transmitter produces at its output in watts. Unless specifically noted by a grant note, the power is measured as conducted power. If the grant note EP is specified, the measured power is EIRP.
Status	The status is a two-character alphabetic identifier that indicates the status of an FCC ID. This search currently returns results for authorized devices. The status codes will be one of the following: GI - indicates that an original Grant has been issued, IP - indicates that a Permissive Change grant has been issued, IM - indicates that a Modification of a grant has been issued.
Status Date	The status date is the date the application status was last updated in MM-DD-YYYY format.

#### 4. WEB APPLICATION DESCRIPTION LANGUAGE (WADL)

Endpoint - <https://apps.fcc.gov/OETLabServices/application.wadl>

##### WADL Content

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<application xmlns="http://research.sun.com/wadl/2006/10">
  <doc xmlns:jersey="http://jersey.dev.java.net/" jersey:generatedBy="Jersey: 1.4 09/11/2010
10:30 PM"/>
  <resources base="https://appsat.fcc.gov:443/OETLabServices/">
    <resource path="/getWhitespaceAuthorizations">
      <method name="GET" id="getWhiteSpaceAuthorizations">
        <request>
          <param xmlns:xs="http://www.w3.org/2001/XMLSchema"
type="xs:string" style="query" name="beginDate"/>
          <param xmlns:xs="http://www.w3.org/2001/XMLSchema"
type="xs:string" style="query" name="endDate"/>
        </request>
        <response>
          <representation mediaType="application/xml"/>
          <representation mediaType="application/json"/>
        </response>
      </method>
    </resource>
    <resource path="/getFCCIDList">
      <method name="GET" id="getFCCIDList">
        <request>
          <param xmlns:xs="http://www.w3.org/2001/XMLSchema"
type="xs:string" style="query" name="fccId"/>
        </request>
        <response>
          <representation mediaType="application/xml"/>
          <representation mediaType="application/json"/>
        </response>
      </method>
    </resource>
    <resource path="/getCBSDAuthorizations">
      <method name="GET" id="getWhiteSpaceAuthorizations">
        <request>
          <param xmlns:xs="http://www.w3.org/2001/XMLSchema"
type="xs:string" style="query" name="beginDate"/>
          <param xmlns:xs="http://www.w3.org/2001/XMLSchema"
type="xs:string" style="query" name="endDate"/>
        </request>
        <response>
          <representation mediaType="application/xml"/>
          <representation mediaType="application/json"/>
        </response>
      </method>
    </resource>
  </resources>
</application>
```

## 5. METHOD CALLS

### 5.1 getFCCIDList

Search for approved equipment authorizations on file with the OET Laboratory matching a specified FCC ID.

#### api call

<https://apps.fcc.gov/OETLabServices/getFCCIDList?fccId=<parameter1>>

#### example call

<https://apps.fcc.gov/OETLabServices/getFCCIDList?fccId=OPS10>

#### parameters

- The full grantee code followed by a full or partial product code.
- FCCID – The full or partial FCC ID that uniquely identifies an equipment authorization (e.g. "OPS"). The FCC ID is made up of a three or five character alpha-numeric grantee code and a product code that can be one to fourteen characters and can be alpha-numeric and include the "-" (dash or hyphen). Blank spaces are not allowed.

#### response

#### JSON

```
[
  {
    "address": "7435 Oakland Mills Road",
    "state": "MD",
    "country": "United States",
    "fccid": "OPS10",
    "applicationPurpose": "Original Equipment",
    "grantDate": "08/01/2017",
    "grantee": "FCC Laboratory Test Grantee Company",
    "city": "Columbia",
    "zipCode": "21044"
  }
]
```

## XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<fCCIDInfoes>
  <fccidInfo>
    <address>7435 Oakland Mills Road</address>
    <applicationPurpose>Original Equipment</applicationPurpose>
    <city>Columbia</city>
    <country>United States</country>
    <FCCId>OPS10</FCCId>
    <grantDate>08/01/2017</grantDate>
    <grantee>FCC Laboratory Test Grantee Company</grantee>
    <state>MD</state>
    <zipCode>21044</zipCode>
  </fccidInfo>
</fCCIDInfoes>
```

### result fields

- Grantee address (address, city, country, state, zip code)
- Grantee name
- Grant date
- FCCID
- Application Purpose

### error response

204 (NO CONTENT): If the query is successful, but no results are returned, this code is returned along with the message “The search was successful, but no results were found matching the specified criteria.”

400 (BAD REQUEST): This code, along with a specific error message is returned if the URL is not correctly entered (e.g. the FCCID parameter was not included on the URL).

500 (INTERNAL SERVER ERROR): If there is any exception on the server side, it is identified and the http status code is returned. The status description contains the detailed reason for the failure.

## 5.2 **getWhitespaceAuthorizations**

Get information on approved white space equipment authorizations within a given grant date range.

### api call

[https://apps.fcc.gov/OETLabServices/getWhitespaceAuthorizations?beginDate= <parameter1>&endDate=<parameter2>](https://apps.fcc.gov/OETLabServices/getWhitespaceAuthorizations?beginDate=<parameter1>&endDate=<parameter2>)

### example call

<https://apps.fcc.gov/OETLabServices/getWhitespaceAuthorizations?beginDate=02-06-2015&endDate=02-06-2015>

## parameters

- The beginning grant date range in mm-dd-yyyy format.
- The ending grant date range in mm-dd-yyyy format.

## response

### JSON

```
[
  {
    "status": "GI",
    "fccid": "OPS1",
    "statusDate": "02/06/2015",
    "equipmentClass": "WGF",
    "applicationPurpose": "Original Equipment"
  }
]
```

### XML

```
<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<equipmentAuthorizationVOes>
  <equipmentAuthorizationVO>
    <applicationPurpose>Original Equipment</applicationPurpose>
    <equipmentClass>WGF</equipmentClass>
    <FCCId>OPS1</FCCId>
    <status>GI</status>
    <statusDate>02/06/2015</statusDate>
  </equipmentAuthorizationVO>
</equipmentAuthorizationVOes>
```

## result fields

- FCCID
- Application Purpose
- Equipment Class
- Status
- Status Date

## error response

204 (NO CONTENT): If the query is successful, but no results are returned, this code is returned along with the message “The search was successful, but no results were found matching the specified criteria.”

400 (BAD REQUEST): This code, along with a specific error message is returned if the URL is not correctly entered (e.g. the beginning and ending dates were not included or not formatted properly on the URL).

500 (INTERNAL SERVER ERROR): If there is any exception on the server side, it is identified and the http status code



is returned. The status description contains the detailed reason for the failure.

### 5.3 **getCBSDAuthorizations**

Get information on approved Citizens Broadband Radio Service Devices within a given grant date range.

#### api call

[https://apps.fcc.gov/OETLabServices/getCBSDAuthorizations?beginDate= <parameter1>&endDate=<parameter2>](https://apps.fcc.gov/OETLabServices/getCBSDAuthorizations?beginDate=<parameter1>&endDate=<parameter2>)

#### example call

<https://apps.fcc.gov/OETLabServices/getCBSDAuthorizations?beginDate=08-01-2017&endDate=08-01-2017>

#### parameters

- The beginning grant date range in mm-dd-yyyy format.
- The ending grant date range in mm-dd-yyyy format.

#### response

#### JSON

```
[
  {
    "status": "GI",
    "fccid": "OPS10",
    "granteeName": "FCC Laboratory Test Grantee Company",
    "statusDate": "08/01/2017",
    "equipmentClass": "CBD",
    "applicationPurpose": "Original Equipment",
    "ISpecs": [
      {
        "description": "FCC example grant",
        "emissionDesignator": "15M0F9W",
        "powerOutput": 0.989,
        "freqMin": 3550,
        "freqMax": 3700
      }
    ],
    "INotes": [
      {
        "grantNote": "Output power is EIRP",
        "grantNoteId": "EP"
      }
    ]
  }
]
```



**XML**

```

<?xml version="1.0" encoding="UTF-8" standalone="yes"?>
<cBSDAuthorizationVOes>
  <cbsdAuthorizationVO>
    <applicationPurpose>Original Equipment</applicationPurpose>
    <equipmentClass>CBD</equipmentClass>
    <FCCId>OPS10</FCCId>
    <granteeName>FCC Laboratory Test Grantee Company</granteeName>
    <status>GI</status>
    <statusDate>08/01/2017</statusDate>
    <lNotes>
      <notes>
        <grantNote>Output power is EIRP</grantNote>
        <grantNoteId>EP</grantNoteId>
      </notes>
    </lNotes>
    <lSpecs>
      <specs>
        <description>FCC example grant</description>
        <emissionDesignator>15M0F9W</emissionDesignator>
        <freqMax>3700.00000000</freqMax>
        <freqMin>3550.00000000</freqMin>
        <powerOutput>0.9890000</powerOutput>
      </specs>
    </lSpecs>
  </cbsdAuthorizationVO>
</cBSDAuthorizationVOes>

```

**result fields**

- Application Purpose
- Equipment Class
- FCCID
- Grantee Name
- Status
- Status Date
- Notes
- Description
- FreqMax
- FreqMin
- Power Output

**error response**

204 (NO CONTENT): If the query is successful, but no results are returned, this code is returned along with the message “The search was successful, but no results were found matching the specified criteria.”

400 (BAD REQUEST): This code, along with a specific error message is returned if the URL is not correctly entered (e.g. the beginning and ending dates were not included or not formatted properly on the URL).

500 (INTERNAL SERVER ERROR): If there is any exception on the server side, it is identified and the http status code is returned. The status description contains the detailed reason for the failure.

#### 5.4 getAFCAuthorizations AFC API for Equipment Classes 6SD and 6FC<sup>2</sup>

The EAS/AFC API is a URL GET<sup>3</sup> call requires two dates <parameter1> and <parameter2>. EAS will return multiple records (XML or JSON format) based on EAS's final action date in the API's <statusDate> field. The date range is between 0:00 of (midnight) for <parameter1> to 24:59.999 for <parameter2>. Each record is unique from any other within the date range call. Each record has a core set of fields that makes the record unique within the date range call, an array of technical specification associated with the core fields and an array of Notes associated with technical specifications.

##### api call Get URL Call:

<https://apps.fcc.gov/OETLabServices/getAFCAuthorizations?beginDate= <parameter1>&endDate=<parameter2>>

##### **example call**

<https://apps.fcc.gov/OETLabServices/getAFCAuthorizations?beginDate= 07-01-2023&endDate=08-01-2023>

##### parameters

- <parameter1> mm-dd-yyyy The beginning grant date
- <parameter2> mm-dd-yyyy The ending grant date

##### Result Structure:

A record consist of:

Core Fields table, unique record			
Field	Type	~ Size	Data
description	string	~64	Free form
status	String	2	GI, IP,IM
fccid	string	'4-19	Various
granteeName	string	~128	Various
statusDate	date	10	mm/dd/yyyy
equipmentClass	string	3	6SD, 6FC
applicationPurpose	string	28	Original Equipment, Change in Identification, Class II Permissive Change, Class III Permissive Change.
ISpec	array	An array as a child to the core that can consist of one or more sets of technical specification. Each set consist of the following fields illustrated in the ISpec table below.	

<sup>2</sup> Currently only two equipment classes are required to be reported in the API response: 6SD (Standard Access Point) and 6FC (Fixed client).

<sup>3</sup> Any internet browser can initiate access to the "call"/API. The default return is XML

<https://apps.fcc.gov/OETLabServices/getAFCAuthorizations?beginDate= <parameter1>&endDate=<parameter2>>

A JSON return can be tested using a Linux curl command such as `curl -o 'testJson.txt' --header 'Accept: application/json' --header 'Content-Type: application/json'`

`'https://apps.fcc.gov/OETLabServices/getAFCAuthorizations?beginDate=<parameter1>&endDate=<parameter2>'`

ISpec table fields			
Field	Type	~ Size	Data
specs	array	<specs> .. </spec> only used in XML response. JSON, objects nest arrays within '[' and ']') See examples below.	
powerOutput	Number	1,8	Watts
freqMin	Number	4,8	MHz
freqMax	Number	4,8	MHz
<lNotes>	array	an array as a child to ISpec that consist of one or more sets of Notes. Each set consist of the following fields illustrated in the INotes table below.	

INotes table			
Field	Type	~ Size	Data
<notes>	array	<notes>.. </notes> only used in XML response. JSON, objects nest arrays within '[' and ']') See examples below.	
grantNote	string	1024	Canned string generated by grantNoteId Code used
grantNoteId	string	2	Code

#### error response

- 204 (NO CONTENT): If the query is successful, but no results are returned, this code is returned along with the message “The search was successful, but no results were found matching the specified criteria.”
- 400 (BAD REQUEST): This code, along with a specific error message is returned if the URL is not correctly entered (e.g. the beginning and ending dates were not included or not formatted properly on the URL).
- 500 (INTERNAL SERVER ERROR): If there is any exception on the server side, it is identified and the http status code is returned. The status description contains the detailed reason for the failure.

#### **XML and JSON Example**

The following examples for JSON and XML demonstrate a response for one FCC ID: OPS-1<sup>4</sup> with three core records. They are colored coded to illustrate the different application records under one FCC ID. **Record one is for equipment class 6FC as an Original Equipment grant , status GI statis GI on 07/31/2023 and colored red.** **Record two is for equipment class 6SD as an Original Equipment grant GI status GI on 07/31/2023 colored blue.** **Record three is class II permissive change for equipment class 6SD colored green.**

The example represents a device that is authorized under multiple technical requirements. The FCC Data Base structure is organized as a series of records under an FCC ID, identifying an embodiment of a device permitted to be imported, marketed, and sold as an FCC-authorized device required by Part 2 Subpart I Marketing of Radio-frequency Devices. Under one FCC ID, multiple fillings called applications demonstrate compliance with different technical requirements as decreed by the regulations. These separate applications are organized under individual equipment classes; for this example, FCC ID OPS1 has two applications under the equipment classes 6SD for a Standard Power Access Point and 6FC for a Fixed Client device. Also, individual applications can be filed under the same FCC ID for Original Equipment, Class II Permissive Change, Change in Identification, or Class III Permissive Change. A getAFCAuthorizations call response typically consists of multiple core records; many may have the same FCC ID, as illustrated in the colored example below. This example is for a product that can be used as a standard access point or a fixed client device.

<sup>4</sup> The example represents a device that is a test record and not a marketed device.

## Json example

```
[
{
  "description": "6GHz API Test application ABC Fixed Client",
  "status": "GI",
  "fccid": "OPS-1",
  "granteeName": "FCC Laboratory Test Grantee Company GT 20200718",
  "statusDate": "07/31/2023",
  "equipmentClass": "6FC",
  "applicationPurpose": "Original Equipment",
  "ISpecs": [
    {
      "INotes": [
        {
          "grantNote": "Output is EIRP. The antenna(s) used for this transmitter must be fixed-mounted on outdoor permanent structures. RF exposure compliance is addressed at the time of licensing, as required by the responsible FCC Bureau(s), including antenna co-location requirements of 47 CFR 1.1307(b) (3).",
          "grantNoteId": "EI"
        },
        {
          "grantNote": "Output power is Effective Isotropic Radiated Power (EIRP)",
          "grantNoteId": "EP"
        },
        {
          "grantNote": "This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.",
          "grantNoteId": "MO"
        }
      ],
      "powerOutput": 4,
      "freqMin": 5935,
      "freqMax": 6415
    },
    {
      "INotes": [
        {
          "grantNote": "Output is EIRP. The antenna(s) used for this transmitter must be fixed-mounted on outdoor permanent structures. RF exposure compliance is addressed at the time of licensing, as required by the responsible FCC Bureau(s), including antenna co-location requirements of 47 CFR 1.1307(b) (3).",
          "grantNoteId": "EI"
        },
        {
          "grantNote": "Output power is Effective Isotropic Radiated Power (EIRP)",
          "grantNoteId": "EP"
        },
        {
          "grantNote": "This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.",
          "grantNoteId": "MO"
        }
      ]
    }
  ]
}
```

```
],
"powerOutput": 4,
"freqMin": 6535,
"freqMax": 6855
}
]
},
{
"description": "Test Application for 6GHz API-ABC std AO",
"status": "GI",
"fccid": "OPS-1",
"granteeName": "FCC Laboratory Test Grantee Company GT 20200718",
"statusDate": "07/31/2023",
"equipmentClass": "6SD",
"applicationPurpose": "Original Equipment",
"ISpecs": [
{
"INotes": [
{
"grantNote": "Output power is Effective Isotropic Radiated Power (EIRP)",
"grantNoteId": "EP"
},
{
"grantNote": "This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.",
"grantNoteId": "MO"
}
]
},
"powerOutput": 4,
"freqMin": 5935,
"freqMax": 6415
},
{
"INotes": [
{
"grantNote": "Output power is Effective Isotropic Radiated Power (EIRP)",
"grantNoteId": "EP"
},
{
"grantNote": "This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.",
"grantNoteId": "MO"
}
]
},
"powerOutput": 4,
"freqMin": 6535,
"freqMax": 6855
}
]
},
{
```

```
"description": "6GHz API Test Application - ABC std AP",
"status": "IP",
"fccid": "OPS-1",
"granteeName": "FCC Laboratory Test Grantee Company GT 20200718",
"statusDate": "07/31/2023",
"equipmentClass": "6SD",
"applicationPurpose": "Class II Permissive Change",
"ISpecs": [
  {
    "INotes": [
      {
        "grantNote": "Output power is Effective Isotropic Radiated Power (EIRP)",
        "grantNoteId": "EP"
      },
      {
        "grantNote": "This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.",
        "grantNoteId": "MO"
      }
    ],
    "powerOutput": 4,
    "freqMin": 5935,
    "freqMax": 6415
  },
  {
    "INotes": [
      {
        "grantNote": "Output power is Effective Isotropic Radiated Power (EIRP)",
        "grantNoteId": "EP"
      },
      {
        "grantNote": "This Multiple Input Multiple Output (MIMO) device was evaluated for multiple transmitted signals as indicated in the filing.",
        "grantNoteId": "MO"
      }
    ],
    "powerOutput": 4,
    "freqMin": 6535,
    "freqMax": 6855
  }
]
```

]

## XML Example

```

<aFCAuthorizationVOes>
  <afcAuthorizationVO>
    <applicationPurpose>Original Equipment</applicationPurpose>
    <description>6GHz API Test application ABC Fixed Client</description>
    <equipmentClass>6FC</equipmentClass>
    <FCCId>OPS-1</FCCId>
    <granteeName>FCC Laboratory Test Grantee Company GT 20200718</granteeName>
    <status>GI</status>
    <statusDate>07/31/2023</statusDate>
    <ISpecs>
      <specs>
        <freqMax>6415.00000000</freqMax>
        <freqMin>5935.00000000</freqMin>
        <powerOutput>4.0000000</powerOutput>
        <INotes>
          <notes>
            <grantNote>Output is EIRP. The antenna(s) used for this transmitter
              exposure
              time of licensing, as required by the
              responsible FCC Bureau(s), including antenna co-location requirements
              of §1.1307(b) (3).</grantNote>
            <grantNoteId>EI</grantNoteId>
          </notes>
          <notes>
            <grantNote>Output power is Effective Isotropic Radiated
              Power (EIRP)</grantNote>
            <grantNoteId>EP</grantNoteId>
          </notes>
          <notes>
            <grantNote>This Multiple Input Multiple Output (MIMO) device was evaluated
              for multiple transmitted signals as indicated in the filing.</grantNote>
            <grantNoteId>MO</grantNoteId>
          </notes>
        </INotes>
      </specs>
      <specs>
        <freqMax>6855.00000000</freqMax>
        <freqMin>6535.00000000</freqMin>
        <powerOutput>4.0000000</powerOutput>
        <INotes>
          <notes>
            <grantNote>Output is EIRP. The antenna(s) used for this
              transmitter must be
              structures. RF exposure compliance is
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## Change Notice

**08/13/2018:** 953436 D01 OET Laboratory Services API v02 replaces 953436 D01 OET Laboratory Services API v01.

Changes to the document include the following:

- Added information on method call for Citizens Broadband Radio Service Devices.

- Added table for summary of results parameters returned

- Updated response examples.

**08/07/2023:** 953436 D01 OET Laboratory Services API v03 replaces 953436 D01 OET Laboratory Services API v02.

Changes to the document include the following:

- Added information on method call getAFCAuthorizations for 6SD Standard Power Access Points and 6FC for Fixed Client devices authorized under CFR 47 Part 15 Subpart E